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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/577,245	04/26/2006	Takuya Tsukagoshi	127848	2491

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EXAMINER	
CALLAWAY, JADE R	

ART UNIT	PAPER NUMBER
2872	

MAIL DATE	DELIVERY MODE
11/10/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/577,245	TSUKAGOSHI ET AL.	
	Examiner	Art Unit	
	JADE R. CALLAWAY	2872	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 September 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *2-9 and 11-40* is/are pending in the application.

4a) Of the above claim(s) *3,4,6-9,12 and 14-40* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *2,5,11 and 13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *26 April 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *9/21/09*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9/21/09 has been entered.

Response to Amendment

2. The amendments to the claims, in the submission dated 9/21/09, are acknowledged and accepted.

Response to Arguments

3. Applicant's arguments with respect to claims 2, 5, 11 and 13 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 2, 5, 11 and 13 are rejected under 35 U.S.C. 102(a/e) as being anticipated by Kim (20040085599).

Consider claim 2, Kim discloses (e.g. figures 2A and 2B) a multilayer holographic recording and reproducing method for holographically recording information on a multilayer holographic recording medium (240, holographic medium) including a number of deposited holographic recording layers (L1, L2, first and second layers) in each of which interference fringes can be formed by projecting an object beam (P, SM, signal beams) and a reference beam (R1, R2, reference beams) that are split (via beamsplitters) from a laser beam (202, 204, lasers) and for reproducing the recorded information by projecting a laser beam for reproduction, the method comprising: a process of recording the information by fixing a projection condition of the reference beam and modulating the object beam (P, SM signal beams) for each of the holographic recording layers so that the holographic recording layers each have a different Bragg's condition (due to the different angles); and a process of projecting the laser beam for reproduction having the same projection condition as that of the reference beam is projected onto the deposited holographic recording layers, the diffraction beams generated in the respective holographic recording layers emitted to different directions from each other (e.g. SM1 and P2, reconstructed signal beams) at the same time by the projected beam are detected by two-dimensional photodetectors (252, photodetector and 260, CCD) a number of which is equal to that of the holographic recording layers (2 recording layers and 2 detectors are present), thereby simultaneously reproducing

pieces of information from light-detecting signals of the two-dimensional photodetectors [0043-0053].

Consider claim 5, Kim discloses (e.g. figures 2A and 2B) a multilayer holographic recording and reproducing method wherein an angle of the object beam is modulated for each of the holographic recording layers during the holographic recording (via 215, 218 mirrors).

Consider claim 11, Kim discloses (e.g. figures 2A and 2B) a multilayer holographic recording and reproducing apparatus for holographically recording information on a multilayer holographic recording medium (240, holographic medium) including a number of deposited holographic recording layers (L1, L2, first and second layers) in each of which interference fringes can be formed by projecting an object beam and a reference beam from a laser beam and for reproducing the recorded information by projecting a laser beam for reproduction, the apparatus comprising: an object optical system and a reference optical system for directing the object light beam and the reference light beam to the multilayer holographic recording medium respectively (e.g. figure 2A); a reproducing laser optical system for projecting the laser beam for reproduction onto the deposited holographic recording layers (e.g. figure 2B); and two-dimensional photodetectors (252, photodetector, 260, CCD) for reproducing pieces of information from diffraction beams (SM1, P1, reconstructed signal beams) generated in the respective holographic recording layers by the laser beams for reproduction, a number of the two-dimensional photodetectors being equal to that of the diffraction beams (2 detectors and 2 diffraction beams are present), wherein the

reference optical system is configured to fix a projection condition of reference beam, the object optical system includes an object beam modulator (e.g. 215, 218, mirrors) for modulating the object beam for each of the holographic recording layers to record information on each of the holographic recording layers with a different Bragg's condition (due to the different of the angles); the reproducing laser optical system is configured to make the laser beam for reproduction be projected onto the deposited holographic recording layers with the same projection condition as the reference beam so as to generate the diffraction beams in the respective holographic recording layers emitted to different directions from each other (e.g. SM1 and P1, reconstructed signal beams) at the same time, and the two-dimensional photodetectors are configured to simultaneously detect diffraction beams generated in the respective holographic recording layers by the projected beams [0042-0056].

Consider claim 13, Kim discloses (e.g. figures 2A and 2B) a multilayer holographic recording and reproducing apparatus, wherein the object beam modulator is an angle modulator (215, 218, mirrors) for modulating the object beam for each of the holographic recording layers during the holographic recording (e.g. the angles are modulated via mirrors 215 and 218).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JADE R. CALLAWAY whose telephone number is (571)272-8199. The examiner can normally be reached on Monday to Friday 6:00 am - 3:30 pm est.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephone B. Allen can be reached on 571-272-2434. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JRC
/JADE R. CALLAWAY/
Examiner, Art Unit 2872

/Arnel C. Lavarias/
Primary Examiner, Art Unit 2872